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| APPLICATION NO.      | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION N |
|----------------------|-------------|----------------------|---------------------|----------------|
| 10/721,854           | 11/24/2003  | Randall B. Noble     | KMC-606             | 6962           |
| 7590                 | 10/18/2004  |                      |                     |                |
| EXAMINER             |             |                      |                     |                |
| BLAU, STEPHEN LUTHER |             |                      |                     |                |
| ART UNIT             |             | PAPER NUMBER         |                     |                |
| 3711                 |             |                      |                     |                |

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Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/721,854

Applicant(s)

NOBLE, RANDALL B.

Examiner

Stephen L. Blau

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 August 2004.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.  
4a) Of the above claim(s) 3,4,6-10 and 12 is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1,2 and 11 is/are rejected.  
7) ☒ Claim(s) 5 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 11/1/03  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Claims 6-10 and 12 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 23 August 2004. Claim 3 with the variability in range of shaft flexibility among a plurality of categories being consistent is directed to species 2 (figure 2) and as such is not the elected species of figure 1. Claim 4 with the variance in shaft flexibility exhibited by the plurality of shafts that compromise each category being irregular is directed to species 4 (figure 4) and as such is not the elected species of figure 1. Therefore claims 3-4 are also withdrawn.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-2 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horwood (5,944,616) in view of Bunn, Horwood (6,729,970) and Hsu (5,380,005).

Braly discloses a method of optimizing the flexibility of a shaft in a set of clubs comprising determining the stiffness of a set of shafts required by a golfer and selecting a category of shafts from a plurality of categories for a set of shafts with shaft lengths as long as 40 inches in length (Fig. 3)

Braly lacks a step of determining swing speed, a range of shaft flexibility exhibited by a category of shafts optimized for golfers with high swing speeds is greater than the range of flexibility by a category of shafts optimized for golfers with a relatively slower swing speeds, and the variability in range of shaft flexibility among the plurality of categories is irregular.

Bunn discloses a method of optimizing a set of clubs by having a step of determining the swing speed of a golfer and matching shaft frequency based on the swing speed (Tale 1, Fig. 1). In view of the patent of Bunn it would have been obvious to modify the method of Horwood (5,944,616) to have a step of determining swing speed and selecting the category of shaft frequency based on swing speed with the higher speed swings given a higher frequency set of shafts and the lower swing speed given the lower frequency set of shafts in order to have shafts with a flex which maximizes hitting distance for the speed at which a golfer swings at.

Horwood (6,729,970) discloses a set of irons with a club length as high as 40 inches in length (Col. 4, Lns. 15-30). Hsu discloses an iron head where the shaft contacts the sole of a head (Fig. 6). In view of the patents of Horwood (6,729,970) and Hsu it would have been obvious to modify the set of clubs of Horwood (5,944,616) to have a set of irons with shafts as long as 40 inches in length in order to have a club

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length as long as 40 inches in length for a 1 iron for a set of irons. As such with a method of Horwood (5,944,616) it would produce a range of shaft flexibility exhibited by a category of shafts optimized for golfers with high swing speeds being greater than the range of flexibility by a category of shafts optimized for golfers with a relatively slower swing speeds due to the A flex curve leveling out at a frequency of 270 cycles per minute at 39.5 inches while the Tour Stiff curve never levels out all the way from 36 inches to 40 inches. As such from 36 inches to 40 inches the Tour stiff set of shafts would have a higher range than the A flex set. In addition, the variability in range of shaft flexibility among the plurality of categories is irregular in that from 36 to 40 inches the range would be the same for the Tour stiff set and S Flex set but different for the A Flex set.

***Allowable Subject Matter***

4. Claim 5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. None of the prior art discloses or render as obvious a range a range of shaft flexibility exhibited by a category of shafts optimized for golfers with high swing speeds is greater than the range of flexibility by a category of shafts optimized for golfers with a relatively slower swing speeds and the variance in shaft flexibility exhibiting by the plurality of shafts that comprise each category being consistent in addition to the other elements of structure claimed.

**Conclusion**

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steve Blau whose telephone number is (703) 308-2712. The examiner is available Monday through Friday from 8 a.m. to 4:30 p.m.. If the examiner is unavailable you can contact his supervisor Greg Vidovich whose telephone number is (703) 308-1513. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0858. (TC 3700 Official Fax 703-872-9306)

slb/ 12 October 2004

  
**STEPHEN BLAU**  
**PRIMARY EXAMINER**